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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,587	12/15/2000	Terence S. Dowling	07844-476001 / P440	3536

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EXAMINER

MCCARTNEY, LINZY T

ART UNIT PAPER NUMBER

2671

DATE MAILED: 03/18/2003

#6

Please find below and/or attached an Office communication concerning this application or proceeding.

DOCKETED BY PRACTICE SYSTEMS  
ACTION: Resp to OA  
BASE: 3-18-03  
DUE: 6-18-03  
DEADLINE: 9-18-03  
INITIALS: pm

Docketed By Billing Secretary  
Due Date: 6/18/03  
Deadline: 9/18/03  
Initials: B. G. 428

# Office Action Summary

Application No.

09/739,587

Applicant(s)

DOWLING ET AL.

Examiner

Linzy McCartney

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13-21, 23-26 and 28-32 is/are rejected.
- 7) ☒ Claim(s) 5, 12, 22 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 6-11, 13, 14, 18-21, 25-26, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,943,063 to Dowling.

- a. Referring to claim 1, Dowling discloses means for defining a coarse grid of cells, each coarse cell corresponding to an output device grayscale pixel, and a high-resolution grid of fine cells, the high-resolution grid being aligned with said coarse grid so that each coarse cell includes an integer number of undivided fine cells, the grids defining edges of cells (column 5, lines 46-50 and column 4, line 61- column 5, line 1); means for placing a character defined by a font program with reference to the coarse grid and fine grid, the character having a stem hinted with two parallel edges that are placed with reference to the grids when the character is so placed, the stem hint edges being separated by a stem width; and stem aligner means for processing the stem before rendering the character font program for output on the output device (column 5, lines 50-57 and Fig. 9A), the stem aligner means comprising means for performing a black-edge hinted stem placement policy (column 8, lines 27-52).

- b. Referring to claim 2, Dowling discloses the number of fine cells per coarse cell is determined according to the number of grayscale levels that can be produced by a pixel of the output device (column 4, line 61- column 5, line 1).
- c. Referring to claim 3, Dowling discloses the number of fine cells per coarse cell is determined by a single, client-selected grid ratio (column 4, line 61- column 5, line 1; column 7, lines 17-18).
- d. Referring to claim 4, Dowling discloses the stem aligner means further comprises means for performing an unbiased-stems hinted stem placement policy (column 8, lines 28-52).
- e. Referring to claim 6, Dowling discloses means for defining a coarse grid of cells, each coarse cell corresponding to an output device grayscale pixel, and a high-resolution grid of fine cells, the high-resolution grid being aligned with said coarse grid so that each coarse cell includes an integer number of undivided fine cells (column 5, lines 46-50 and column 4, line 61- column 5, line 1); means for placing a character defined by a font program with reference to the coarse grid and fine grid, the character having a stem hinted with two parallel edges that is placed with reference to the grids when the character is so placed, the stem hint edges being separated by a stem width (column 5, lines 50-57 and Fig. 9A); and stem aligner means for processing the stem before rendering the character font program for output on the output device, the stem aligner means comprising means for performing an unbiased-stems hinted stem placement policy (column 8, lines 27-52).

- f. Referring to claim 7, Dowling discloses the number of fine cells per coarse cell is determined by a single, client-selected grid ratio (column 4, line 61- column 5, line 1; column 7, lines 17-18).
- g. Referring to claim 8, Dowling discloses the number of fine cells per coarse cell is determined according to the number of grayscale levels that can be produced by a pixel of the output device (column 4, line 61- column 5, line 1).
- h. Referring to claim 9, Dowling discloses the stem aligner means further comprises means for performing a black-edge hinted stem placement policy (column 8, lines 27-52).
- d. Referring to claim 10, Dowling discloses selecting a hinted stem placement policy from a set of policies comprising at least either a black-edge policy or an unbiased-stem policy (column 8, lines 7-14 and 27-52); placing a character defined by a font program with reference to a coarse grid and an overlapping fine grid, the character having a stem hinted with two parallel edges that is placed with reference to the grids when the character is so placed, the stem hint edges being separated by a stem width; and processing the stem before rendering the character font program for output on the output device in accordance with the selected policy (column 5, lines 50-57 and Fig. 9A).
- e. Referring to claim 11, Dowling discloses rounding the stem width to the width of an integral number of fine cells (column 8, lines 27-36); and moving the stem with rounded width a minimum distance so that at least one of the stem edges aligns with a parallel coarse cell edge (column 8, lines 37-52).
- f. Referring to claim 13, Dowling discloses the set of policies comprises both a black-edge policy and an unbiased-stems policy (column 8, lines 7-14 and 27-52).

- f. Referring to claim 14, Dowling discloses wherein the set of policies comprises a hard-edge policy and a soft-edge policy (column 8, lines 7-14).
- g. Referring to claim 16, Dowling discloses wherein the policy is selected for both vertical stems and horizontal stems (column 8, lines 7-14)
- g. Referring to claim 18, Dowling discloses defining a coarse grid of cells, each coarse cell corresponding to an output device grayscale pixel, and a high-resolution grid of fine cells, the high-resolution grid being aligned with said coarse grid so that each coarse cell includes an integer number of undivided fine cells, the grids defining edges of the cells (column 5, lines 46-50 and column 4, line 61- column 5, line 1); placing a character defined by a font program with reference to the coarse grid and fine grid, the character having a stem hinted with two parallel edges that are placed with reference to the grids when the character is so placed, the stem hint edges being separated by a stem width (column 5, lines 50-57 and Fig. 9A); and perform a black-edge hinted stem placement policy (column 8, lines 27-52).
- h. Referring to claim 19, Dowling discloses the number of fine cells per coarse cell is determined according to the number of grayscale levels that can be produced by a pixel of the output device (column 4, line 61- column 5, line 1).
- i. Referring to claim 20, Dowling discloses the number of fine cells per coarse cell is determined by a single, client-selected grid ratio (column 4, line 61- column 5, line 1; column 7, lines 17-18).
- j. Referring to claim 21, Dowling discloses performing an unbiased-stems hinted stem placement policy (column 8, lines 27-52).

k. Referring to claim 23, Dowling discloses defining a coarse grid of cells, each coarse cell corresponding to an output device grayscale pixel, and a high-resolution grid of fine cells, the high-resolution grid being aligned with said coarse grid so that each coarse cell includes an integer number of undivided fine cells, the grids defining edges of the cells (column 5, lines 46-50 and column 4, line 61- column 5, line 1); placing a character defined by a font program with reference to the coarse grid and fine grid, the character having a stem hinted with two parallel edges that are placed with reference to the grids when the character is so placed, the stem hint edges being separated by a stem width (column 5, lines 50-57 and Fig. 9A); and perform an unbiased stem policy (column 8, lines 27-52).

i. Referring to claim 24, Dowling discloses performing a black-edge hinted stem placement policy (column 8, lines 27-52).

h. Referring to claim 25, Dowling discloses selecting a hinted stem placement policy from a set of policies comprising at least either a black-edge policy or an unbiased-stems policy (column 8, lines 7-14 and 27-52); placing a character defined by a font program with reference to a coarse grid and an overlapping fine grid, the character having a stem hinted with two parallel edges that is placed with reference to the grids when the character is so placed, the stem hint edges being separated by a stem width (column 5, lines 50-57 and Fig. 9A); and process the stem before rendering the character font program for output on the output device in accordance with the selected policy (column 5, lines 50-57 and Fig. 9A).

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- i. Referring to claim 26, Dowling discloses processing the stem in accordance with a black-edge policy (column 8, lines 27-52), including instructions to: round the stem width to the width of an integral number of fine cells (column 8, lines 27-36); and move the stem with rounded width a minimum distance so that at least one of the stem edges aligns with a parallel coarse cell edge (column 8, lines 37-52).
- j. Referring to claim 28, Dowling discloses wherein the set of policies comprises both a black-edge policy and an unbiased-stems policy (column 8, lines 7-14 and 27-52).
- j. Referring to claim 29, Dowling discloses the set of policies further comprises a hard-edge policy and a soft-edge policy (column 8, lines 7-14).
- k. Referring to claim 31, Dowling discloses the policy is selected for both vertical stems and horizontal stems (column 8, lines 7-14).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 15, 17, 30, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dowling as applied to claims 10 and 25 further in view of U.S. Patent No. 4,675,830 to Hawkins.
- a. Referring to claim 15, Dowling as applied to claim 10 above meets the limitations recited in claim 15 except Dowling does not explicitly teach the policy is selected for



vertical stems or horizontal stems. Hawkins discloses the policy is selected for vertical or horizontal stems (column 10, lines 5-12 and 30-38). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the disclosure of Dowling with the teachings of Hawkins. The suggestion/motivation for doing so would have been to reduce the aesthetic problems encountered when contour descriptions of characters are mathematically scaled to low resolution/point sizes (column 2, lines 37 – 43).

b. Referring to claim 17, Dowling as applied to claim 10 above meets the limitations recited in claim 17 except Dowling does not explicitly teach selecting a first policy for vertical stems and a different second policy for horizontal stems. Hawkins teaches selecting a first policy for vertical stems and a different second policy for horizontal stems (column 10, lines 5-12 and 30-38). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the disclosure of Dowling with the teachings of Hawkins. The suggestion/motivation for doing so would have been to reduce the aesthetic problems encountered when contour descriptions of characters are mathematically scaled to low resolution/point sizes (column 2, lines 37 – 43).

c. Referring to claim 30, Dowling as applied to claim 25 above meets the limitations recited in claim 30 except Dowling does not explicitly teach the policy is selected for vertical stems or horizontal stems. Hawkins discloses the policy is selected for vertical or horizontal stems (column 10, lines 5-12 and 30-38). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the

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disclosure of Dowling with the teachings of Hawkins. The suggestion/motivation for doing so would have been to reduce the aesthetic problems encountered when contour descriptions of characters are mathematically scaled to low resolution/point sizes (column 2, lines 37 – 43).

d. Referring to claim 32, Dowling as applied to claim 25 above meets the limitations recited in claim 32 except Dowling does not explicitly teach selecting a first policy for vertical stems and a different second policy for horizontal stems. Hawkins teaches selecting a first policy for vertical stems and a different second policy for horizontal stems (column 10, lines 5-12 and 30-38). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the disclosure of Dowling with the teachings of Hawkins. The suggestion/motivation for doing so would have been to reduce the aesthetic problems encountered when contour descriptions of characters are mathematically scaled to low resolution/point sizes (column 2, lines 37 – 43).

***Allowable Subject Matter***

5. Claims 5, 12, 22, and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Linzy McCartney** whose telephone number is **(703) 605-0745**.

The examiner can normally be reached on Mon-Friday (8:00AM-5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at **(703) 305-9798**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

ltm

March 5, 2003



MARK ZIMMERMAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600